

APPLICATION

FOR

UNITED STATES LETTERS PATENT

TITLE: ENSURING THAT ADVERTISEMENTS ARE PLAYED

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Background

Systems are available for distributing a wide variety of content to users. In some cases, the users may select a particular content they wish to play. In many cases, it is desirable to insert commercials or advertisements into the content as the content is selected.

15 A variety of stripping programs, fast forwarding
functions, muting and masking functions are available in
digital playback devices. The risk arises for advertisers
that the users may avoid actually playing the advertising
material in a human understandable way. If the advertising
20 material is never played, it will have no effect.

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circumvented), they may be unwilling to subsidize the electronic distribution of content.

Therefore, there is a need for a way to ensure that advertising material inserted in content is actually played
5 as originally designed and intended by the advertiser.

Brief Description of the Drawings

Figure 1 is a block diagram of one embodiment of the present invention; and

Figure 2 is a flow chart for software, in accordance
10 with one embodiment of the present invention.

Detailed Description

15 Referring to Figure 1, a processor-based system 10 may include a media player 60 that plays electronic content. Electronic content may include video such as television, audio, games, software, or other media. The media player 60 may be, for example, a compact disk player, a magnetic card reader, an MP-3 player, or a digital video disk player, as examples.

~~FIG. 2~~ The processor-based system 10 may be a conventional desktop computer system, a set-top box, or a processor-based appliance, as examples. The processor-based system 10 may include the media player 60, a display system 54 for displaying visual material and a sound system 56 for playing audio material.

The processor-based system 10 includes a processor 40 coupled to a host bus 42. The host bus 42 couples a north bridge 44, a system memory 48, and a level two or L2 cache 46.

5 The north bridge 44 is in turn coupled to a bus 50 that couples to the display 54 through the display controller 52. The display 54 may be a conventional computer monitor or it may be a television receiver, as examples. Also coupled to the bus 50 is an audio
10 accelerator 58b. The audio accelerator 58b is coupled to a digital-to-analog converter 26 that in turn is coupled to the sound system 56. The sound system 56 may include speakers 16' and 16".

Fig 23
15 Also, coupled to the bus 50 is a south bridge 62. The south bridge 62 is coupled to hubs that in turn couple to the media player 60 and a storage 66 such as a hard disk drive. Software 90 for implementing certain features of one embodiment of the present invention may be stored on the storage 66.

20 Also coupled to the south bridge 62, is an additional bus 76. The bus 76 is in turn coupled to a serial input/output (SIO) device 78 and a basic input/output system (BIOS) storage 88. The bus 78 may be coupled to a keyboard 80, a modem 84, and other peripheral devices 82,
25 for example, for allowing games to be played.

The modem 84 may allow the processor-based system 10 to be coupled to a content distribution system such as the Internet. In addition, content may be received through airwave broadcasts, satellite systems, or cable television systems, as additional examples. In each case, the content may be provided to the system 10 over any available transport.

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Coupled to the digital-to-analog converter 26 is a watermark detector 60. The watermark detector 60 detects whether watermarks present in the content received from a content provider are actually played as intended. For example, the watermark detector 60 may detect whether the watermarked material is played in full at the predetermined play speed and is not otherwise muted, masked, fast-forwarded or stripped from the content. The watermark detector 60 may be coupled to the media player 60 to control the play of content on the media player 60. Thus, content may not be played through the system 10 unless certain advertising material containing a watermark is played as originally intended.

The watermark may be a faint signal that is embedded in the advertising content, that is unstrippable and may not be degraded without degrading the desired content to an unacceptable extent. The faint signal may be designed to be undetectable by users. Watermarks are commonly used with content to protect them from being digitized or re-

the detection of the watermarks in the advertising may also be used to accrue rewards or benefits to users who actually play the advertisements as originally designed.

As still another example, the watermark may be
5 extracted and a security code may be parsed from the watermark. This information may be combined by the processor-based system 10 with an identifier for a particular user. Thus, the advertisement together with the user identifier may be collected for market research
10 purposes.

The watermark detector 60 may be utilized with content that is recorded on a medium such as a magnetic disk as well as content that is received with the watermark over an appropriate distribution network, such as the Internet, or
15 even a television distribution network such as an airwave, cable or satellite network.

Turning to Figure 2, the software 90 stored on the storage 66, in accordance with one embodiment of the present invention, may initially determine whether the time
20 for a commercial has arrived, as indicated in diamond 92. In one embodiment, commercials may be inserted at predetermined times. In such case, the software 90 may begin by determining if a commercial insertion time has arrived. In other embodiments in which the commercials are
25 provided automatically, for example, before the content is

the software 90 reports a play validation as indicated at block 96. In other words, the software 90 may report to external sources that the advertisement was actually played by a given processor-based system 10 as intended. This
5 feedback to the advertiser may provide confirmation that in fact the advertising program is being executed as intended. It may also be utilized to develop statistics in some embodiments.

Next, in some embodiments, the advertisement
10 identifier may be added to a particular user's profile as indicated in block 98. A user profile may be developed for everyone who uses a given processor-based system 10. This profile may be developed by requiring a password to begin using the system 10. As a result, a profile may be
15 developed indicating which commercials are viewed by particular users.

This user profile information may be utilized to award credits, points, or rewards to particular users based on their commercial viewing practices. In addition, the
20 profile may be provided to marketing operations for targeted advertisements for particular users.

fn file Next, the media player 60 may be unlocked as indicated in block 100. In one embodiment, this may mean that a key is provided for decrypting encrypted content and allowing
25 the play of that content in return for having watched a commercial. As another example, the media player 60 may be

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allowed to actually operate to play the rest of the
content. In still another embodiment, the system 10 either
decrypts or allows the play of content received from an
~~external source.~~

5 While the present invention has been described with
respect to a limited number of embodiments, those skilled
in the art will appreciate numerous modifications and
variations therefrom. It is intended that the appended
claims cover all such modifications and variations as fall
10 within the true spirit and scope of this present invention.

What is claimed is:

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